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ABSTRACT

A method, computer program product and system for rendering soft shadows in an image or frame representing a 3D scene, comprising the steps, from a light's point of view, of detecting and creating a list of edges casting shadows, a list of soft shadow edges and a list of shadow volumes polygons; rendering said soft shadow edges into one or more sides of a cubemap, rendering said shadow volume polygons in combination with a stencil buffer to detect full shadowed areas; from a viewer's point of view rendering said scene with said cubemap applied while performing a stencil test operation for preventing the scene to be drawn in shadowed areas, to produce a soft shadowed image.

In addition, the system supports the re-use of the shadow volumes and cubemap information for more than one frame.

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(Fig. 10)